

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: LONG POND	Lake Area (ha): 15.78
Town: BARRINGTON	Maximum depth (m): 3.5
County: Strafford	Mean depth (m): 1.5
River Basin: Coastal	Volume (m ³): 238500
Latitude: 43°15'22" N	Relative depth: 0.8
Longitude: 71°04'27" W	Shore configuration: 2.06
Elevation (ft): 254	Areal water load (m/yr): 110.1
Shore length (m): 2900	Flushing rate (yr ⁻¹): 72.80
Watershed area (ha): 3600.0	P retention coeff.: 0.20
% watershed ponded: 1.5	Lake type: natural

BIOLOGICAL:

3 February 1999

16 July 1998

DOM. PHYTOPLANKTON (% TOTAL)	#1	NO WINTER PLANKTON	ASTERIONELLA 65%
	#2	ANALYZED	SYNURA 25%
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			17.21
DOM. ZOOPLANKTON (% TOTAL)	#1		KERATELLA 57%
	#2		TINTINNIDIUM 15%
	#3		POLYARTHRA 8%
ROTIFERS/LITER			1957
MICROCRUSTACEA/LITER			25
ZOOPLANKTON ABUNDANCE (#/L)			2440
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			1.0
BOTTOM DISSOLVED OXYGEN (mg/L)		12.3	0.2
BACTERIA (E. coli, #/100 ml)	#1		6
	#2		2
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 1.6
Hypolimnion volume (m³) : None
Anoxic volume (m³) : 14200

CHEMICAL:

Lake: LONG POND
Town: BARRINGTON

	3 February 1999		16 July 1998		
DEPTH (m)		3.0	1.0		3.0
pH (units)		5.6	6.1		5.4
A.N.C. (Alkalinity)		1.7	2.5		2.6
NITRATE NITROGEN		0.11	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN		0.30	0.70		0.60
TOTAL PHOSPHORUS		0.010	0.025		0.040
CONDUCTIVITY (μ mhos/cm)		62.6	41.5		36.4
APPARENT COLOR (cpu)		47	110		110
MAGNESIUM			0.49		
CALCIUM			1.7		
SODIUM			4.7		
POTASSIUM			< 0.40		
CHLORIDE		12	7		5
SULFATE		5	2		3
TN : TP		41	28		15
CALCITE SATURATION INDEX			4.6		

All results in mg/L unless indicated otherwise

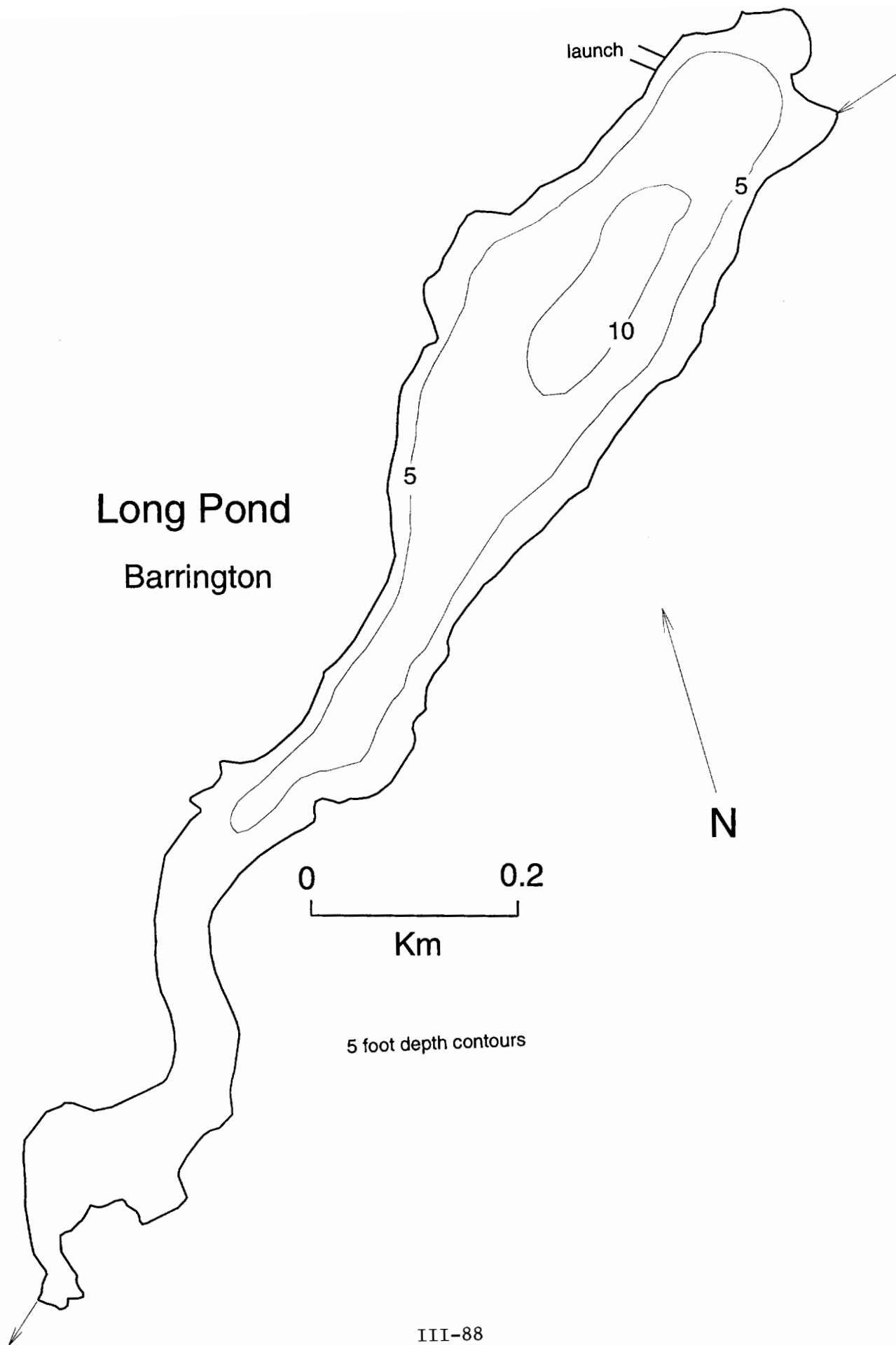
TROPHIC CLASSIFICATION: 1998

D.O. S.D. PLANT CHL TOTAL CLASS

**	5	3	3	11	Eutro.
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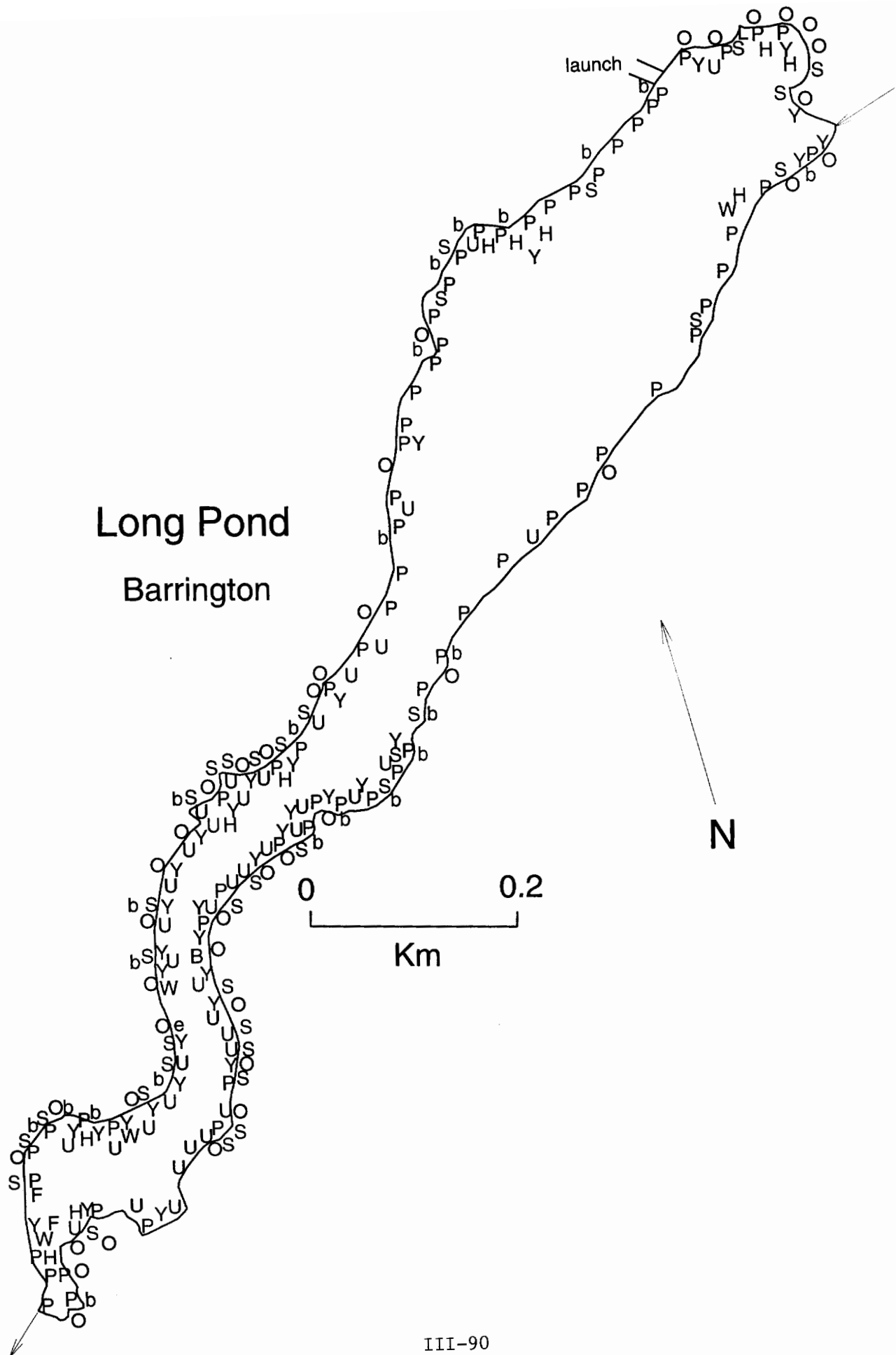
COMMENTS:

1. Long Pond was previously surveyed and classified in 1988. It was rated eutrophic in both years. The chlorophyll (40 vs 17 mg/m³) and total phosphorus (0.052 vs 0.025 mg/L) were much higher in 1988.
2. This is a moderately acidic, dark tea-colored eutrophic pond.
3. No designated public access; boat was launched at a small beach at the northern end, but there was no signage indicating ownership.
4. Most of the shoreline was developed with cottages.



[illegible]

Barrington



[illegible]